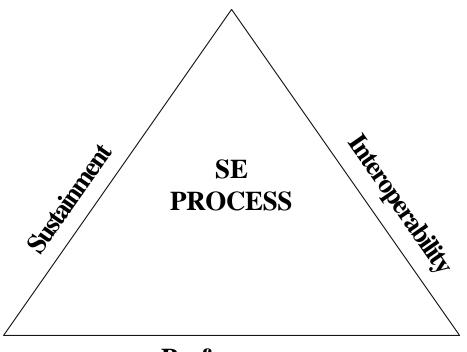


#### **EA-6B Technical Data Center (TDC)**



**Performance** 

NDIA 23 October 2002

**Robert Miller** 

Integrated AEW Logistics Branch miller\_r@crane.navy.mil

#### **Outline**

#### This presentation will demonstrate:

- The NSWC Crane vision for the information age
- The power of -and challenges for today's knowledge
- NSWC Crane's evolving Integrated Technical Data Center (ITDC)
- NSWC Crane's eBusiness initiatives for the ITDC



#### THIS PRESENTATION

Is meant to incite thought / discussion

 Is based in all cases upon existing data/trends/analyses/technologies (e.g., NO PIXIE DUST)

 Provides in some cases a somewhat broader view of prospective developments and issues



#### **Our Vision**

"Bring the Power of the 'Information Age' to the Warfighters and their Support Force"



# **Data**

# With organization is information





#### Information

With understanding is knowledge

Better,

Faster,

Consistent,

**More Informed Decisions** 



# **Knowledge Creation**

**Share** Manage **Objects Fuse Processes Adapt Experiences Processing power Memory Values Beliefs Apply Create** Renew **Sustain** 



# **Knowledge Dominance**

- Knowledge:
  - Access
  - Infrastructure
  - Content
  - Integration
  - Tools
  - Organizations
  - Doctrine or Processes
  - Performance
  - Business
  - Protection



# **Knowledge Challenges**

- Leadership "buy-in"
- Platform-centric culture
- Knowledge Management for wireless technology
- Web enabling
- "Knowledge-portal(s)"
- What information "counts"?
- Acquisition Cycle
- Connectivity
- Legacy systems

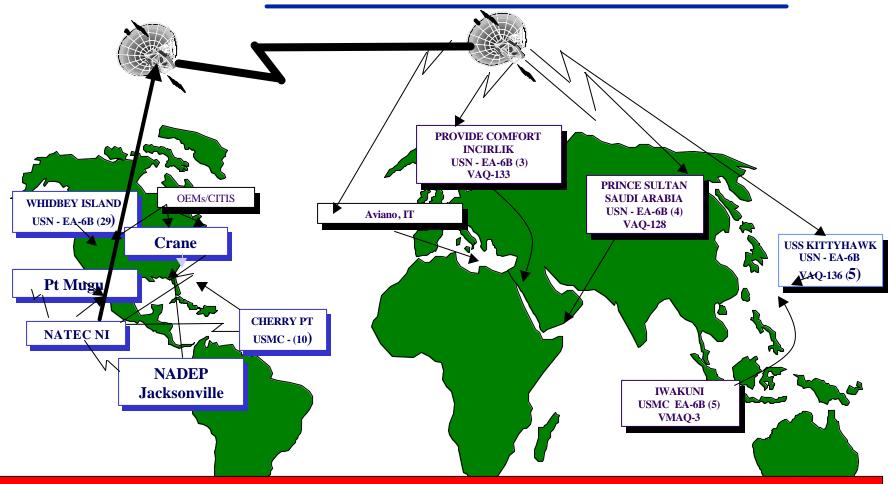


#### **Our Goal**

"Build a "Clicks and Steel"
Knowledge Organization by
Exploiting Knowledge
Management Tools to achieve
Knowledge Dominance."



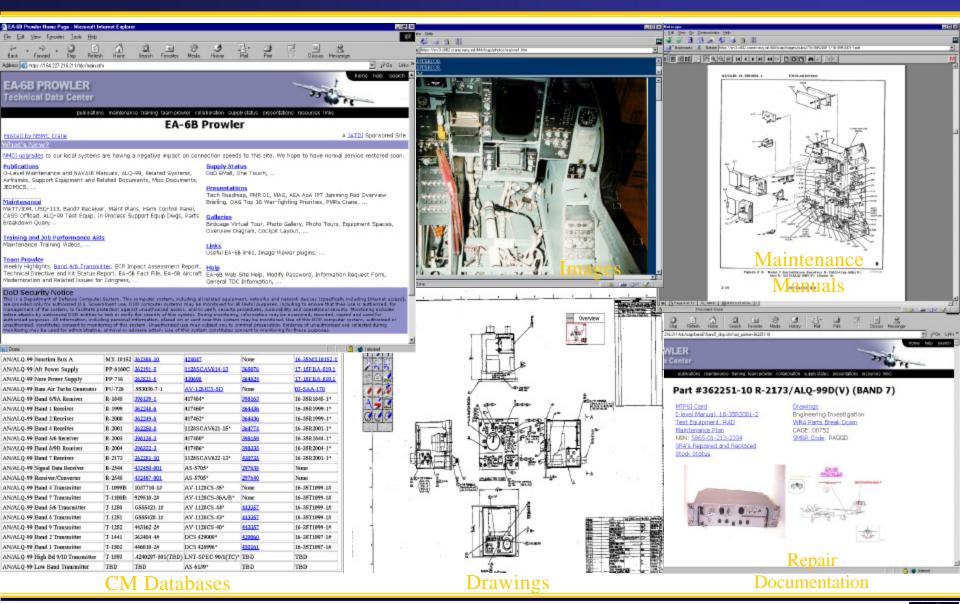
# Joint Aviation Technical Data Integration

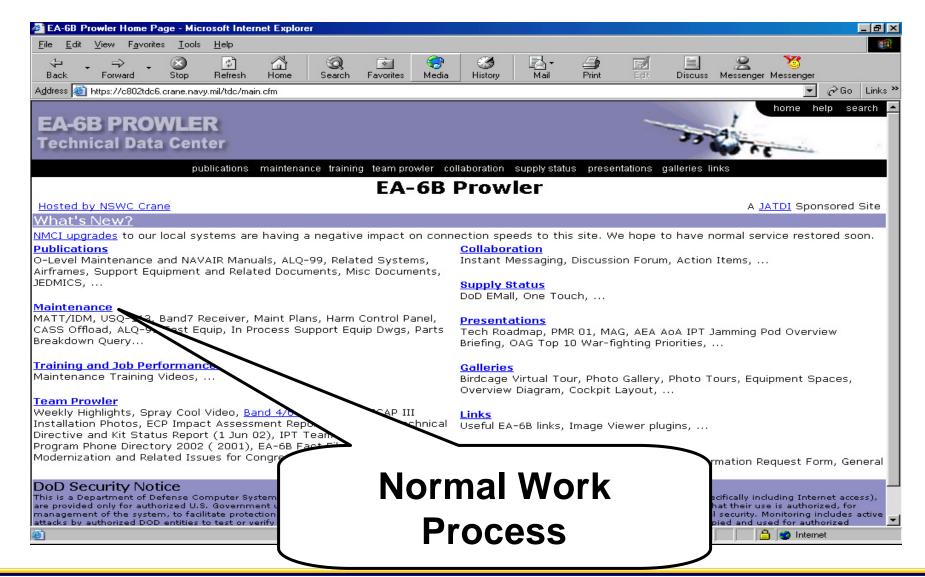


Provide Required Data to Community Users, Properly Integrated to Optimize Processes & Minimize Platform Ownership Costs

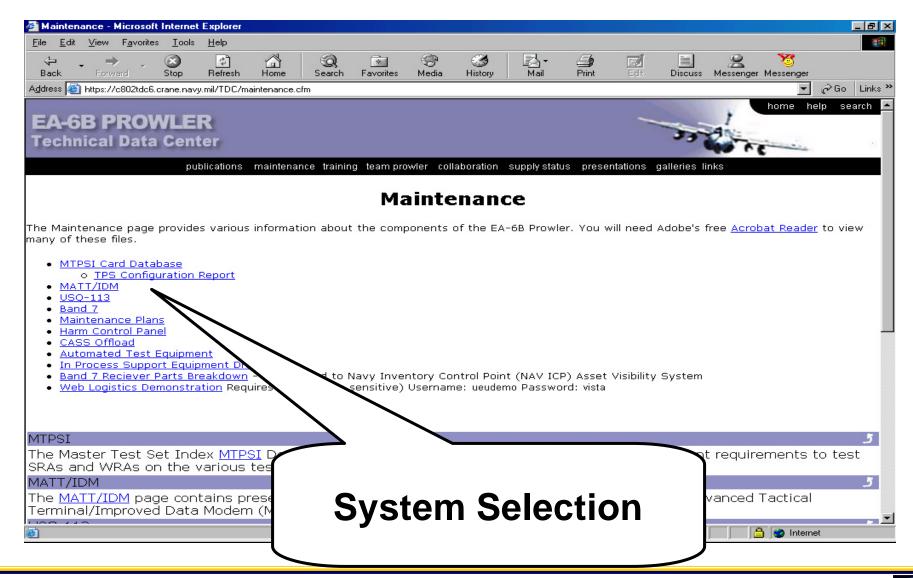


#### **EA-6B Technical Data Center**

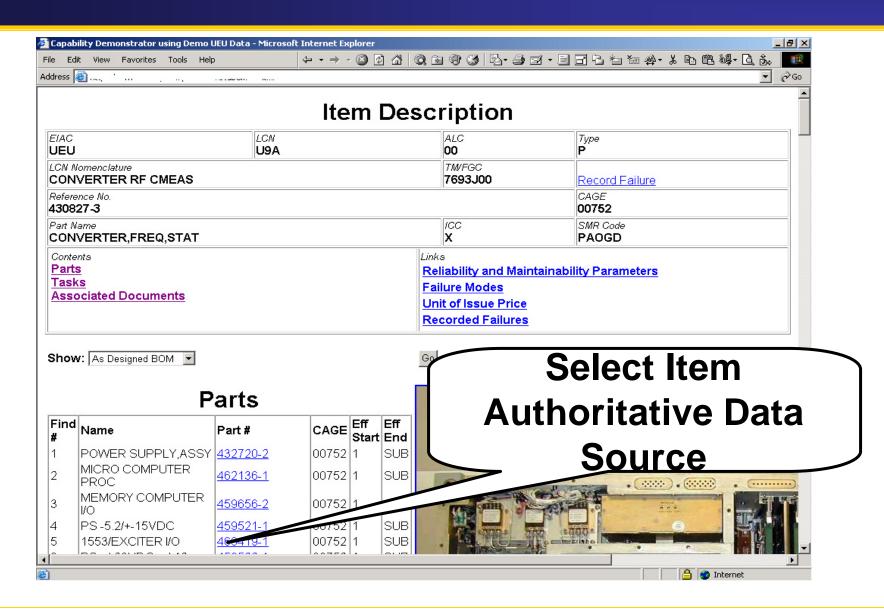




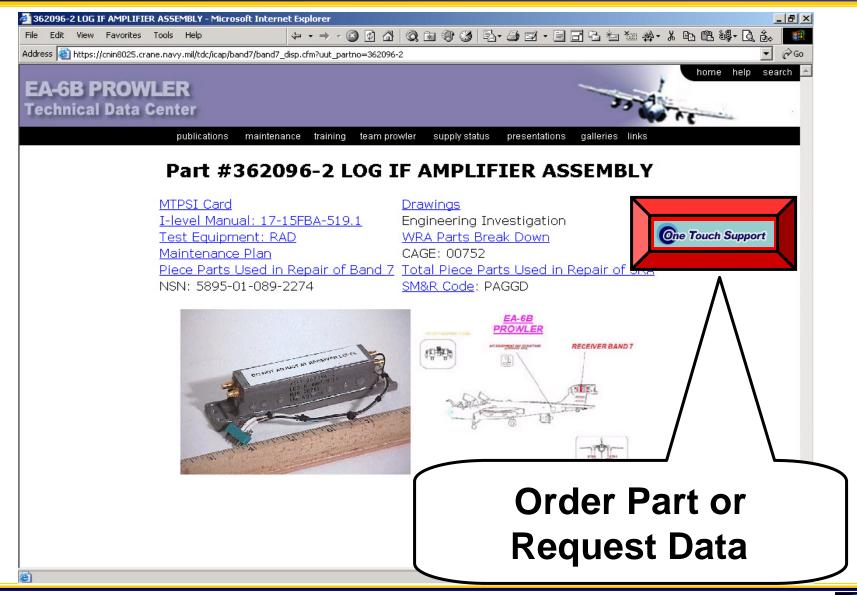












#### **Our Direction**

Distinguish knowledge from information

 Provide a facility for producing knowledge from data and information

Deliver access to data and information





## **ITDC Strategy**

- Leverage Existing Systems -
  - "Using existing systems as a source of Web services involves significantly less risk than complete transformation." [Gartner]
- Use of Web Services to Deliver Knowledge and Value -
  - Business processes that can be discovered and run over the Internet using standards-based technologies [Borland]
- Use of eBusiness Processes
  - \* "...ERP by itself falls short of meeting today's customers' demands for better service." "eBusiness provides the ideal extension to internal processes." [PriceWaterhouseCoopers]



#### **ITDC Direction**

What are the possibilities for the JATDI ITDC?

To become the Logistics Functional Area tool of choice for maintenance knowledge and the conduct of maintenance business in the Web Workstyle.

How will this be accomplished?

By capitalizing on and exposing current business systems to stakeholders, using a combination of new and existing systems as a source of Web Services.



# What we are doing?

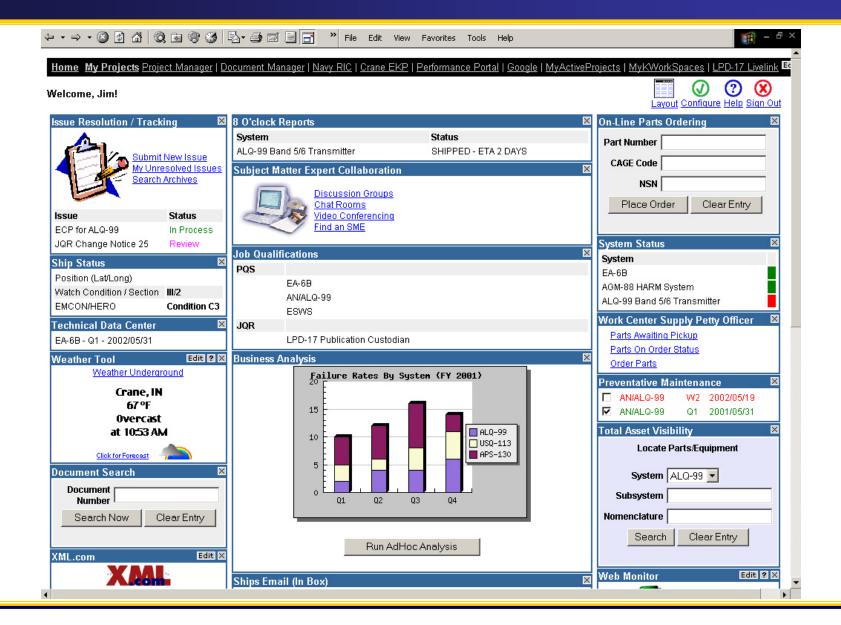
- Technical Data Center
  - Content Management
  - Task Force Web

 Integrated Electronic Technical Manuals

eBusiness Initiatives



#### ITDC To-Be



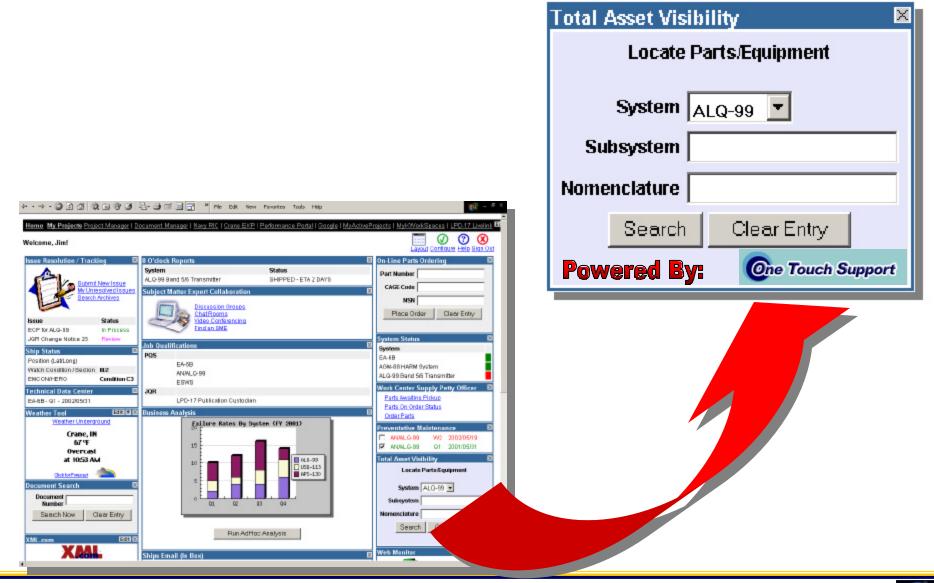


#### eBusiness Initiatives

- Total Asset Visibility
  - example: NTAV, JTAV
- Online Parts Ordering
  - example: One Touch
- Corrective Maintenance Data Mining
  - \* example: Decision Support Tools, Business Intelligence
- Subject Matter Expert Collaboration
  - example: Next Generation Distance Support
- Issue Tracking and Resolution
  - example: Anchor Desk



# **Total Asset Visibility**

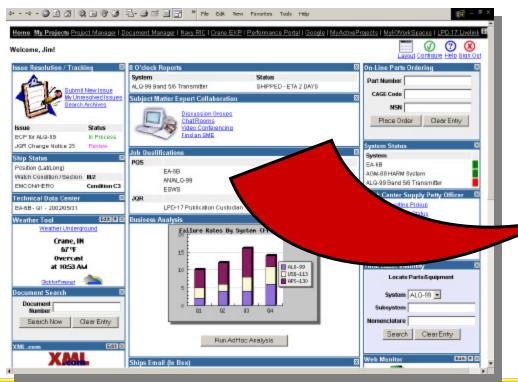


### **Business Analysis**



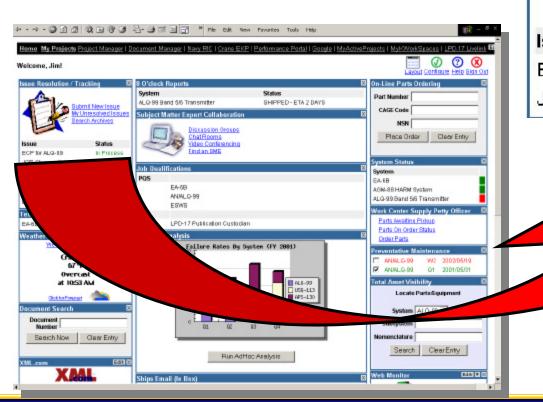
# **Subject Matter Expert Collaboration**

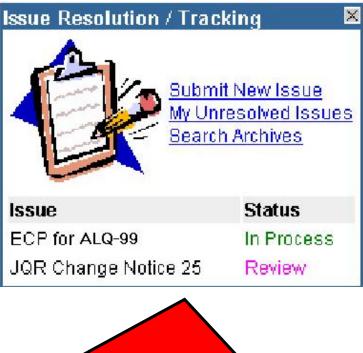






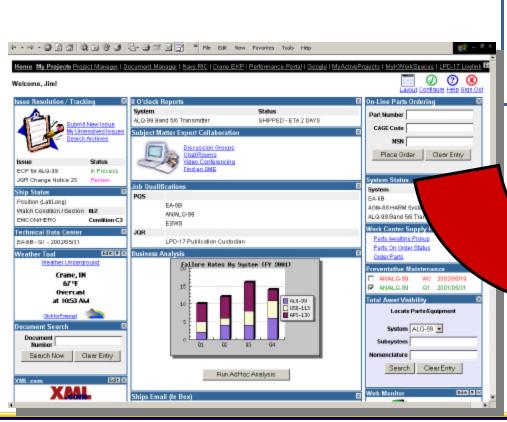
## **Issue Tracking**

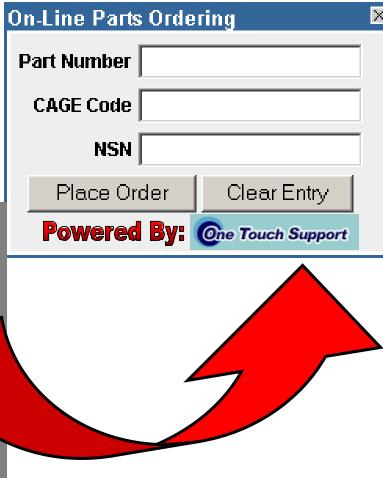






# **Parts Ordering**

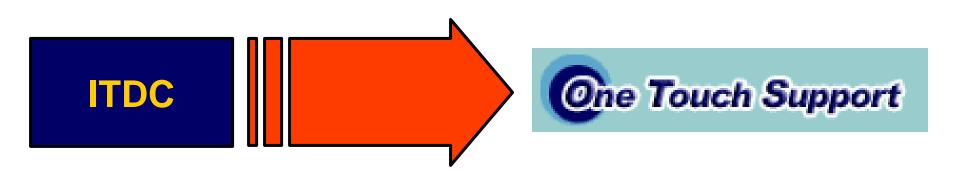






#### Web Service Notional Function

# Order Submission or Data Request with properly formatted, Authoritative ITDC Data

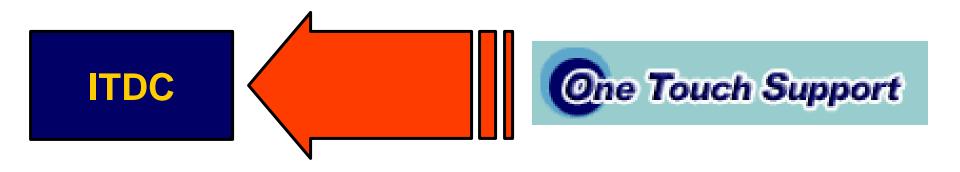


**TAV, Parts Order or Status Request** 



#### Web Service Notional Function

# Returned Data or Request for Update from ITDC Authoritative Data



Configuration Check or Drawing Lookup



#### **ITDC** Future

- Follow-on Work
  - Framework for Technical Document Content Management
  - Standardized Portal Content Management System
  - XML Database
- Knowledge Projection Project
  - Knowledge Harvesting Tools
  - Distance Support Integration
- Single Integrated Support Picture
  - Dynamic Readiness Knowledge



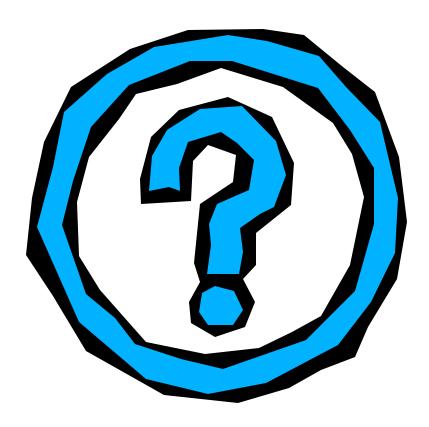
#### In Conclusion

Our goal is to provide a dynamic, web-based combat system knowledge maintenance tool template that can:

- Support combat systems real-time in remote/at sea locations
- Provide up-to-date maintenance/repair information
- Reduce equipment down-time with increased access to subject matter expertise
- Reduce rework and recurring problems through global issue tracking/resolution
- Be applied to any system any service



# **Questions?**





#### **Consulted Works**

- TFW, NMCI, IT21 Combined Navy Developers Guide, April 2002
- E-Business and ERP: Transforming the Enterprise, PriceWaterhouseCoopers, 2000, Norris, Hurley, Hartley, Dunleavy, Balls
- Borland, Web Services FAQs, <u>http://www.borland.com/webservices/faqs.html</u>
- ◆ A Field Guide to Services On Demand and Sun<sup>™</sup> ONE, Diana Reichardt, September 2001
- Legacy Software: Junkyard Wars for Web Services?, Gartner Group Symposium ITExpo, 2001
- XML A Manager's Guide, Kevin Dick, Addison-Wesley Information Technology Series, 2000
- DoN Data Management and Interoperability Implementation and Planning Guide, November 2000

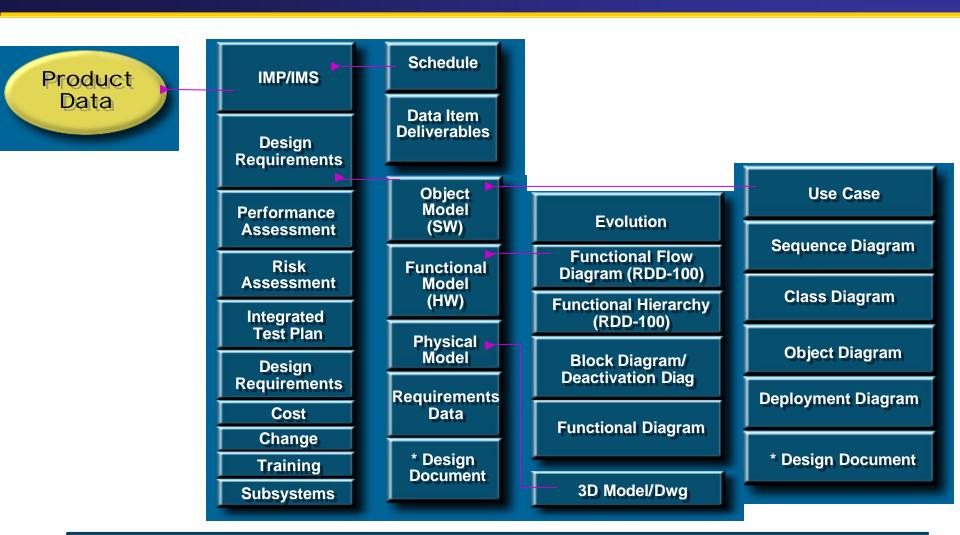


# **Backup Slides**

The following slides were saved to back-up the presentation.



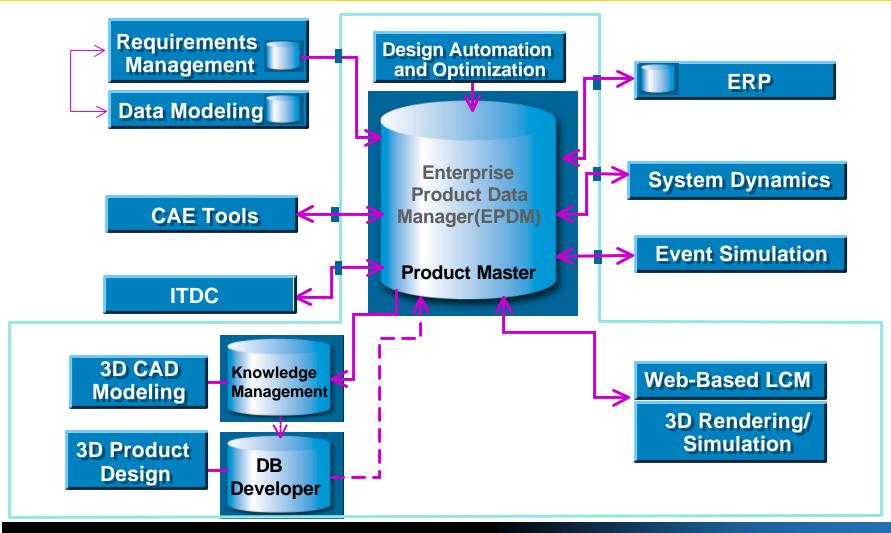
#### **Product Data Definition**



Product definition includes <u>all</u> design information including a consolidated representation of hardware, software and people.



# **Integrated Toolset**



This supports future growth and focuses on reduced TOC

# Integrated Tool Set Implementation

